

ERRATA SHEET

WASTE DISCHARGE REQUIREMENTS: CITY OF ESCONDIDO, HALE AVENUE
RESOURCE RECOVERY FACILITY, DISCHARGE TO THE PACIFIC OCEAN VIA THE SAN
ELIJO OCEAN OUTFALL, SAN DIEGO COUNTY
TENTATIVE ORDER NO. R9-2005-0101, NPDES PERMIT NO. CA0107981

Each of the following changes has been made to Tentative Order No. R9-2005-0101; NPDES No. CA0107981, in response to comments received to date. The changes/corrections are shown below in bold and underline/~~strikeout~~ format to indicate added and removed language, respectively.

1. The dates in Table 3. Administrative Information on page 1 have been corrected:

This Order was adopted by the Regional Water Board on:	<u>June 8, 2005</u> May 11
This Order shall become effective on:	<u>June 8, 2005</u> May 11
This Order shall expire on:	<u>June 8, 2005</u> May 11
The U.S. Environmental Protection Agency (U.S. EPA) and the Regional Water Board have classified this discharge as a major discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of the Order expiration date as application for issuance of new waste discharge requirements.	

2. The date in the certification/adoption statement on page 1 has been changed:

I, John H. Robertus, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on June 8 ~~May 11~~, 2005.

3. Section VII.M *Single Operational Upset* in the Table of Contents on page 2 has been deleted and the subsequent sections renumbered accordingly.

4. The following has been added to *List of Attachments* on page 3:

Attachment G – Dilution Model Summary.....G-1

5. The following correction to Section II.B *Facility Description* on page 4 has been made:

Attachment B provides a ~~topographic~~ map of the area around the Facility.

6. The following correction to Section II.D *Rationale for Requirements* on page 5 has been made:

Attachments **F and G** ~~A through F~~, which contain background information and rationale for Order requirements, are hereby incorporated into this Order and, ~~thus~~, constitute part of the Findings for this Order.

7. The following correction to Section II.H *Water Quality Control Plans* on page 6 has been made:

The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended **it this plan** on September 18, 1975. The Thermal plan contains temperature objectives for coastal waters.

8. The following addition to Section III *Discharge Prohibitions* on page 9 has been made:

G. Compliance with Discharge Prohibitions contained in Section III.H of the Ocean Plan is a requirement of this Order.

9. The following corrections to Table 7. Effluent Limitations in Section B *Effluent Limitations* on page 10 have been made:

Constituent	Units	Effluent Limitations					6 Month Median
		Max Daily	Avg Monthly	Avg Weekly	Instantaneous		
					Min	Max	
CBOD 5-day 20°C	mg/l		25	40			
	lbs/day		1,100 <u>3,400</u>	1,800 <u>5,500</u>			
	%	The average monthly percent removal shall not be less than 85 percent.					
Total Suspended Solids	mg/l		30	45			
	lbs/day		1,300 <u>4,100</u>	2,000 <u>6,200</u>			
	%	The average monthly percent removal shall not be less than 85 percent.					
pH	Standard units				6.0	9.0	
Oil and Grease	mg/l		25	40		75	
	lbs/day		3,400	5,500		10,000	
Settleable Solids	ml/l		1.0	1.5		3.0	
Turbidity	NTU		75	100		225	
Acute Toxicity	TUa	7.4 6.9					

10. The following table replaces Table 8. Performance Goals in Section B *Effluent Limitations* on page 11:

Constituent	Units	Performance Goals					
		Max Daily	Avg Monthly	Avg Weekly	Instantaneous		6 Month Median
					Min	Max	
Arsenic	ug/l	6,900				18,000	1,200
	lbs/day	1,000				2,800	180
Cadmium	ug/l	950				2,400	240
	lbs/day	140				360	36
Chromium (Hexavalent) ¹	ug/l	1,900				4,800	480
	lbs/day	290				710	71
Copper	ug/l	2,300				6,700	240
	lbs/day	360				1,000	36
Lead	ug/l	1,900				4,800	480
	lbs/day	290				710	71
Mercury	ug/l	38				95	9.4
	lbs/day	5.7				14	1.4
Nickel	ug/l	4,800				12,000	1,200
	lbs/day	710				1,800	180
Selenium	ug/l	14,000				36,000	3,600
	lbs/day	2,100				5,400	540
Silver	ug/l	630				1,600	130
	lbs/day	94				240	19
Zinc	ug/l	17,000				46,000	2,900
	lbs/day	2,600				6,900	430
Cyanide ²	ug/l	950				2,400	240
	lbs/day	140				360	36
Total Residual Chlorine ³	ug/l	1,900				14,000	480
	lbs/day	290				2,100	72
Chronic Toxicity ⁴	TUc	238					
Ammonia (as N)	mg/l	570				1,400	140
	lbs/day	24,000				60,000	6,000
Phenolic Compounds (non-chlorinated)	ug/l	29,000				71,000	7,100
	lbs/day	4,300				10,700	1,100
Chlorinated Phenolics	ug/l	950				2,400	240
	lbs/day	140				360	36
Endosulfan	ug/l	4.3				6.4	2.1
	lbs/day	0.64				0.96	0.32
Endrin	ug/l	0.95				1.4	0.48
	lbs/day	0.14				0.21	0.071
HCH ⁵	ug/l	1.9				2.9	0.95

Constituent	Units	Performance Goals					
		Max Daily	Avg Monthly	Avg Weekly	Instantaneous		6 Month Median
					Min	Max	
	lbs/day	0.29				0.43	0.14
Radioactivity ⁶	-	Not to exceed limits specified in Title 17 California Code of Regulations Section 30253, Standards for Protection Against Radiation					
	-						
Acrolein	ug/l		52,000				
	lbs/day		7,900				
Antimony	ug/l		290,000				
	lbs/day		43,000				
Bis (2-chloroethoxy) methane	ug/l		1,000				
	lbs/day		160				
Bis (2-chloroisopropyl) ether	ug/l		290,000				
	lbs/day		43,000				
Chlorobenzene	ug/l		140,000				
	lbs/day		20,000				
Chromium (III)	ug/l		45,000,000				
	lbs/day		6,800,000				
Di-n-butyl Phthalate	ug/l		830,000				
	lbs/day		130,000				
Dichlorobenzenes ⁷	ug/l		1,200,000				
	lbs/day		180,000				
1,1-Dichloroethylene	ug/l		210				
	lbs/day		32				
Diethyl Phthalate	ug/l		7,900,000				
	lbs/day		1,200,000				
Dimethyl Phthalate	ug/l		200,000,000				
	lbs/day		29,000,000				
4,6-Dinitro-2-methylphenol	ug/l		52,000				
	lbs/day		7,900				
2,4-Dinitrophenol	ug/l		9,500				
	lbs/day		1,400				
Ethylbenzene	ug/l		980,000				
	lbs/day		150,000				
Fluoranthene	ug/l		3,600				
	lbs/day		540				
Hexachlorocyclopentadiene	ug/l		14,000				
	lbs/day		2,100				
Isophorone	ug/l		170,000				
	lbs/day		26,000				
Nitrobenzene	ug/l		1,200				

Constituent	Units	Performance Goals					6 Month Median
		Max Daily	Avg Monthly	Avg Weekly	Instantaneous		
					Min	Max	
	lbs/day		180				
Thallium	ug/l		480				
	lbs/day		71				
Toluene	ug/l		20,000,000				
	lbs/day		3,000,000				
1,1,2,2-Tetrachloroethane	ug/l		550				
	lbs/day		82				
Tributyltin	ug/l		0.33				
	lbs/day		0.050				
1,1,1-Trichloroethane	ug/l		130,000,000				
	lbs/day		19,000,000				
Acrylonitrile	ug/l		24				
	lbs/day		3.6				
Aldrin	ug/l		0.0052				
	lbs/day		0.00079				
Benzene	ug/l		1,400				
	lbs/day		210				
Benzidine	ug/l		0.016				
	lbs/day		0.0025				
Beryllium	ug/l		7.9				
	lbs/day		1.2				
Bis(2-chloroethyl) ether	ug/l		11				
	lbs/day		1.6				
Bis(2-ethylhexyl) phthalate	ug/l		830				
	lbs/day		125				
Carbon Tetrachloride	ug/l		210				
	lbs/day		32				
Chlordane ⁸	ug/l		0.0056				
	lbs/day		0.00082				
Chlorodibromomethane	ug/l		2,000				
	lbs/day		310				
Chloroform	ug/l		31,000				
	lbs/day		4,600				
DDT ⁹	ug/l		0.040				
	lbs/day		0.0061				
1,4-Dichlorobenzene	ug/l		4,300				
	lbs/day		640				
3,3'-Dichlorobenzidine	ug/l		1.9				
	lbs/day		0.29				

Constituent	Units	Performance Goals					6 Month Median
		Max Daily	Avg Monthly	Avg Weekly	Instantaneous		
					Min	Max	
1,2-Dichloroethane	ug/l		6,700				
	lbs/day		1,000				
Dichlorobromomethane	ug/l		1,500				
	lbs/day		220				
Dichloromethane	ug/l		110,000				
	lbs/day		16,000				
1,3-Dichloropropene	ug/l		2,100				
	lbs/day		320				
Dieldrin	ug/l		0.0095				
	lbs/day		0.0014				
2,4-Dinitrotoluene	ug/l		620				
	lbs/day		93				
1,2-Diphenylhydrazine	ug/l		38				
	lbs/day		5.7				
Halomethanes ¹⁰	ug/l		31,000				
	lbs/day		4,600				
Heptachlor	ug/l		0.012				
	lbs/day		0.0018				
Heptachlor Epoxide	ug/l		0.0048				
	lbs/day		0.00071				
Hexachlorobenzene	ug/l		0.050				
	lbs/day		0.0075				
Hexachlorobutadiene	ug/l		3,300				
	lbs/day		500				
Hexachloroethane	ug/l		600				
	lbs/day		89				
N-Nitrosodimethylamine	ug/l		1,700				
	lbs/day		260				
N-Nitrosodi-N-Propylamine	ug/l		90				
	lbs/day		14				
N-Nirtosodiphenylamine	ug/l		600				
	lbs/day		89				
PAHs ¹¹	ug/l		2.1				
	lbs/day		0.31				
PCBs ¹²	ug/l		0.0045				
	lbs/day		0.00069				
TCDD Equivalents ¹³	ug/l		0.00000093				
	lbs/day		0.00000014				
Tetrachloroethylene	ug/l		480				

Constituent	Units	Performance Goals					6 Month Median
		Max Daily	Avg Monthly	Avg Weekly	Instantaneous		
					Min	Max	
	lbs/day		71				
Toxaphene	ug/l		0.050				
	lbs/day		0.0075				
Trichloroethylene	ug/l		6,400				
	lbs/day		960				
1,1,2-Trichloroethane	ug/l		2,200				
	lbs/day		340				
2,4,6-Trichlorophenol	ug/l		69				
	lbs/day		10				
Vinyl Chloride	ug/l		8,600				
	lbs/day		1,300				

11. The date in Section IV.A.2.g of Standard Provisions on page 18 has been changed as follows:

This Order expires on ~~June 8 May 11~~, 2010, after which, the terms and conditions of this permit are automatically continued pending issuance of a new permit, provided that all requirements of USEPA's NPDES regulations at 40 CFR 122.6 and the State's regulations at CCR Title 23, Section 2235.4 regarding the continuation of expired permits and waste discharge requirements are met.

12. Section VI.C.2.f *Urban Runoff Diversion Program* of Standard Provisions on pages 25 - 26 has been deleted.

13. A new Section VI.C.2.f has been inserted on page 25: *Toxicity Reduction Evaluation (TRE)*. The language was previously Section VII.M *Toxicity Reduction Evaluation (TRE)* on page 31.

14. All references to U.S. EPA in the Order and attachments have been changed to USEPA.

15. All references to the Monitoring and Reporting Program in the Order and attachments as having an Order number (e.g. MRP R9-2005-0101) has been changed as follows:

~~the MRP (Attachment E) R9-2005-0101~~

16. The following in Section VII.L Chronic Toxicity on pages 30-31 has been deleted and inserted at the end of Section V *Whole Effluent Toxicity Testing Requirements* on page E-8 with:

~~If the toxicity testing result shows an exceedance of the chronic toxicity limitation identified in the performance goals for Outfall 001 (Section IV.B.2 of this Order), the Discharger shall:~~

~~1. Take all reasonable measures necessary to immediately minimize toxicity; and~~

~~1. Increase the frequency of the toxicity test(s) that showed a violation to at least two times per month until the results of at least two consecutive toxicity tests do not show violations.~~

~~If the Executive Order determines that toxicity testing shows consistent violation or exceedance of any acute or chronic toxicity limitation or performance goal identified in Section IV.B.2 of this Order, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) that includes all reasonable steps to identify the source of toxicity. Once the source of toxicity is identified, the Discharger shall take all reasonable steps to reduce the toxicity to meet the toxicity limitations identified in the final effluent limitations for Outfall 001 (Section IV.B.2 of this Order).~~

17. Section VII.M *Toxicity Reduction Evaluation (TRE)* on page 31 has been deleted and the subsequent sections renumbered accordingly. The language has been moved to Section VI.C.2 as subsection f.

18. The following correction to Endnote No. 1 on page 34 has been made:

Dischargers may, at their option, meet this performance goal limitation as a total chromium performance goal limitation.

19. The following correction to the dilution factor in Endnote No. 3 on page 34 has been made:

The water quality objectives for total chlorine residual applicable to intermittent discharges not exceeding two hours, shall be determined through the use of the following equation: $\log y = -0.43 (\log x) + 1.8$, where y = the water quality objective (in ug/l) to apply when chlorine is being discharged; x = the duration of uninterrupted chlorine discharge in minutes. Actual effluent limitations for total chlorine, when discharging intermittently, shall then be determined according to *Implementation Procedures for Table B* from the Ocean Plan (2001), using a minimum probable initial dilution factor of 237 ~~229~~ and a flow rate of 18.0 MGD.

20. The following change to Section V.E.2.c on page D-8 of Attachment D has been made:

Violation of a maximum daily discharge limitation for any of the pollutants that are identified ~~listed~~ in this Order to be reported within 24 hours [*40 CFR §122.41(l)(6)(ii)(C)*].

21. Section VII.A *Non-Municipal Facilities* on page D-11 of Attachment D has been deleted and the following sub sections in Section VII have been renumbered.

22. Sections VI.I and VI.J of the Monitoring and Reporting Program (Attachment E) Table of Contents on page E-1 have been deleted.

23. The following changes to Attachment E, *List of Tables* on page E-1 has been made: new Tables 7 and 9 have been inserted; Tables 6 and 8 (previously Table 7) have been renamed; and the tables renumbered accordingly.

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<u>Table 13. Reporting Schedule</u>	<u>14</u>

24. The following corrections to surf zone monitoring stations in Table 1. Monitoring Station Locations in Section II *Monitoring Locations* on page E-3 of Attachment E have been made: S6 has been made historical and S8 has been created.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
		- Receiving Water Monitoring Stations -
		- Surf Zone Monitoring Stations -
	S6	Surf Zone; 2,200 ft north of the outfall <u>(historical)</u>
	<u>S8</u>	<u>Surf Zone; 8,000 ft north of the outfall</u>

25. The following corrections to Table 3. Effluent Monitoring in Section IV *Effluent Monitoring Requirements* on page E-4 of Attachment E have been made:

Parameter	Units	Sample Type ¹	Minimum Sampling Frequency
Total Residual Chlorine	<u>µg/L</u> mg/L	grab	daily ⁷
non-chlorinated phenolic compounds	µg/L	<u>grab 24-hr composite</u>	quarterly ^{3, 4}
chlorinated phenolics	µg/L	<u>grab 24-hr composite</u>	quarterly ^{3, 4}
endosulfan	µg/L	<u>grab 24-hr composite</u>	quarterly ^{3, 4}
endrin	µg/L	<u>grab 24-hr composite</u>	quarterly ^{3, 4}
HCH	µg/L	<u>grab 24-hr composite</u>	quarterly ^{3, 4}

Parameter	Units	Sample Type ¹	Minimum Sampling Frequency
radioactivity	pCi/L	<u>24 hr composite</u> grab	quarterly ³
antimony	µg/L	<u>24 hr composite</u> grab	semiannually ³

26. The following (previously part of Section VII.L *Chronic Toxicity* on pages 30-31) has been added to Section V *Whole Effluent Toxicity Testing Requirements* on page E-8 of Attachment E:

If the toxicity testing result shows an exceedance of the acute or chronic toxicity limitation or performance goal identified in Section IV.B of this Order, the Discharger shall:

- A. Take all reasonable measures necessary to immediately minimize toxicity; and**
- B. Increase the frequency of the toxicity test(s) that showed a violation to at least two times per month until the results of at least two consecutive toxicity tests do not show violations.**

If the Executive Order determines that toxicity testing shows consistent violation or exceedance of any acute or chronic toxicity limitation or performance goal identified in Section IV.B of this Order, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) that includes all reasonable steps to identify the source of toxicity. Once the source of toxicity is identified, the Discharger shall take all reasonable steps to reduce the toxicity to meet the toxicity limitations identified in the final effluent limitations for Outfall 001 (Section IV.B of this Order).

27. The following has been added to Section VI.A.1 *Surf Zone Water Quality Monitoring* on page E-9 of Attachment E:

Grab samples shall be collected and analyzed for total and fecal coliform and enterococcus bacteria at a minimum frequency of one time per week **from May 1 through October 31, and at a minimum frequency of once every other week from November 1 through April 30 of each year.**⁵

28. Section VI.A.3 *Surf Zone Water Quality Monitoring* on page E-9 of Attachment E has been deleted.

29. The following has replaced Section VI.B *Near Shore Water Quality Monitoring* on page E-9 of Attachment E:

1. Reduced Monitoring

If the Executive Officer determines that the effluent at all times complies with Section IV.B Effluent Limitations and Performance Goals of Order No. R9-2005-0101, only reduced near shore water quality monitoring specified below is required.

Table 6. Near Shore Water Quality Reduced Monitoring Requirements

<u>Determination</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency</u>
<u>Visual Observations</u>	<u>:</u>	<u>:</u>	<u>monthly</u>
<u>Total and Fecal Coliform</u>	<u>number / 100 ml</u>	<u>grab ⁹</u>	<u>monthly</u>
<u>Enterococcus ⁵</u>	<u>number / 100 ml</u>	<u>grab ⁹</u>	<u>monthly</u>

2. Intensive Monitoring

The intensive near shore water quality monitoring specified below is required during the 12-month period beginning November 1, 2008 through October 31, 2009, and must be submitted by December 10, 2009. This monitoring data will assist Regional board staff in the evaluation of the Report of Waste Discharge. The intensive near shore water quality monitoring specified below is also required if the Executive Officer determines that the effluent does not at all times comply with Section IV.B Effluent Limitations and Performance Goals of Order No. R9-2005-0101.

Table 7. Near Shore Water Quality Intensive Monitoring Requirements

<u>Determination</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency</u>
<u>Visual Observations</u>	<u>:</u>	<u>:</u>	<u>monthly</u>
<u>Total and Fecal Coliform</u>	<u>number / 100 ml</u>	<u>grab ¹¹</u>	<u>monthly</u>
<u>Enterococcus ⁵</u>	<u>number / 100 ml</u>	<u>grab ¹¹</u>	<u>monthly</u>

30. The following in Section VI.B *Near Shore Water Quality Monitoring* on page E-9 of Attachment E has been deleted.

~~If a near shore water quality monitoring station consistently exceeds a coliform objective or exceeds a geometric mean enterococcus density of 24 organisms per 100 mL for a thirty day period or 12 organisms per 100 mL for a six month period, the Discharger shall conduct a survey to determine if discharges from the Hale Avenue Resource Recovery Facility are the source of the contamination. If the survey indicates that elevated coliform and/or enterococcus levels are attributable to discharges from the Hale Avenue Resource Recovery Facility, the Discharger shall take action to control the source.~~

31. The following changes to Section VI.C *Off Shore Water Quality Monitoring* on page E-10 of Attachment E has been made:

1. Reduced Monitoring

If the Executive Officer determines that the effluent at all times complies with Section IV.B Effluent Limitations and Performance Goals of Order No. R9-2005-0101, only reduced off shore water quality monitoring specified below is required.

Table 7 8. Off Shore Water Quality ~~Reduced~~ Monitoring Requirements

Determination	Units	Type of Sample	Minimum Frequency
Visual Observations	-	-	monthly
Total and Fecal Coliform	number / 100 ml	grab ¹¹	monthly
Enterococcus ⁵	number / 100 ml	grab ¹¹	monthly
Temperature	° F	grab ¹²	monthly
Dissolved Oxygen	mg/L	grab ¹²	monthly
Light Transmittance	percent	instrument ¹²	monthly
pH	pH units	grab ⁹	monthly

2. Intensive Monitoring

The intensive off shore water quality monitoring specified below is required during the 12-month period beginning November 1, 2008 through October 31, 2009, and must be submitted by December 10, 2009. This monitoring data will assist Regional board staff in the evaluation of the Report of Waste Discharge. The intensive off shore water quality monitoring specified below is also required if the Executive Officer determines that the effluent does not at all times comply with Section IV.B Effluent Limitations and Performance Goals of Order No. R9-2005-0101.

Table 9. Off Shore Water Quality Intensive Monitoring Requirements

<u>Determination</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency</u>
<u>Visual Observations</u>	<u>-</u>	<u>-</u>	<u>monthly</u>
<u>Total and Fecal Coliform</u>	<u>number / 100 ml</u>	<u>grab ¹¹</u>	<u>monthly</u>
<u>Enterococcus ⁵</u>	<u>number / 100 ml</u>	<u>grab ¹¹</u>	<u>monthly</u>
<u>Temperature</u>	<u>° F</u>	<u>grab ¹²</u>	<u>monthly</u>
<u>Dissolved Oxygen</u>	<u>mg/L</u>	<u>grab ¹²</u>	<u>monthly</u>
<u>Light Transmittance</u>	<u>percent</u>	<u>instrument ¹²</u>	<u>monthly</u>
<u>pH</u>	<u>pH units</u>	<u>grab ⁹</u>	<u>monthly</u>

32. The following changes to Section VI.D *Benthic Monitoring* on pages E-10 and E-11 of Attachment E have been made:

~~The monitoring specified below is required for a 12-month period during the first and third years of the Order. The monitoring data will assist Regional Water Board staff in the evaluation of the Report of Waste Discharge, which is required to be submitted by the~~

~~Discharger within 180 days prior to the Order's expiration date of May 11, 2005. Benthic monitoring shall be conducted at all offshore monitoring stations.~~

The intensive monitoring specified below is required during the 12-month period beginning November 1, 2008 through October 31, 2009, and must be submitted by December 10, 2009. This monitoring data will assist Regional board staff in the evaluation of the Report of Waste Discharge. The sediment monitoring specified below is also required if the Executive Officer determines that the effluent does not at all times comply with Section IV.B Effluent Limitations and Performance Goals of Order No. R9-2005-0101. Benthic monitoring shall be conducted at all off shore monitoring stations.

1. Sediment Characteristics. Analyses shall be performed on the upper two inches of core.

Table 8 10. Sediment Monitoring Requirements

Determination	Units	Type of Sample	Minimum Frequency
Sulfides	mg/kg	core	Semi-annually Years 1 & 3
Total Chlorinated Hydrocarbons	mg/kg	core	Semi-annually Years 1 & 3
BOD ₅	mg/kg	core	Semi-annually Years 1 & 3
COD	mg/kg	core	Semi-annually Years 1 & 3
Particle Size Distribution	mg/kg	core	Semi-annually Years 1 & 3
Arsenic	mg/kg	core	Annually Years 1 & 3
Cadmium	mg/kg	core	Annually Years 1 & 3
Total Chromium	mg/kg	core	Annually Years 1 & 3
Copper	mg/kg	core	Annually Years 1 & 3
Lead	mg/kg	core	Annually Years 1 & 3
Mercury	mg/kg	core	Annually Years 1 & 3
Nickel	mg/kg	core	Annually Years 1 & 3
Silver	mg/kg	core	Annually Years 1 & 3
Zinc	mg/kg	core	Annually Years 1 & 3
Cyanide	mg/kg	core	Annually Years 1 & 3

Phenolic Compounds	mg/kg	core	<u>Annually</u> Years 1 & 3
Radioactivity	pCi/kg	core	<u>Annually</u> Years 1 & 3

2. Infauna. Samples shall be collected with a Paterson, Smith-McIntyre, or orange-peel type dredge, having an open sampling area of not less than 124 square inches and a sediment capacity of not less than 210 cubic inches. The sediment shall be sifted through a one-millimeter mesh screen and all organisms shall be identified to as low a taxon as possible.

Table 9 11. Infauna Monitoring Requirements

Determination	Units	Minimum Frequency
Benthic Biota	Identification and enumeration	3 grabs <u>semi-annually</u> years 1 & 3

33. The following changes to Section VI.E *Additional Biological Monitoring* on page E-11 of Attachment E have been made:

The intensive monitoring specified below is required during the 12-month period beginning November 1, 2008 through October 31, 2009, and must be submitted by December 10, 2009. This monitoring data will assist Regional board staff in the evaluation of the Report of Waste Discharge. The biological transect monitoring specified below is also required if the Executive Officer determines that the effluent does not at all times comply with Section IV.B Effluent Limitations and Performance Goals of Order No. R9-2005-0101.

~~The monitoring specified below is required during the 12-month period for first and third year of this Order. The monitoring data will assist Regional Water Board staff in the evaluation of the Report of Waste Discharge, which is required to be submitted by the Discharger within 180 days prior to the Order's expiration date of May 11, 2010.~~

Table 10 12. Demersal Fish and Macroinvertebrates Monitoring Requirements

Determination ¹³	Units	Minimum Frequency
Biological Transects	Identification and enumeration	<u>Annually</u> Years 1 & 3

34. The following changes to Section VI.H *Intensive Monitoring* on page E-12 of Attachment E has been made:

The Discharger shall perform the intensive monitoring as described by this MRP ~~for years 1 and 3 of the Order and participate~~ in conjunction with the Southern California Coastal Water Research Project (SCCWRP) Bight Study ~~in year 5 of this Order.~~

The Discharger shall ~~in year 5 of this Order~~ participate and coordinate with state and local agencies and other Dischargers in the San Diego Region in development ~~and implementation~~ of a regional monitoring program (Bight Study) for the Pacific Ocean as directed by this Regional Water Board. The intent of the Bight Study is to maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled resources of the region.

35. Section VI.I *Plume Tracking Study* on page E-13 of Attachment E has been deleted.
36. Section VI.J *Urban Runoff Diversions* on page E-13 of Attachment E has been deleted.
37. The following change to Section I.B on page F-3 of Attachment F has been made:

The terms and conditions of the current Order have been automatically continued and remain in effect until new Waste Discharge Requirements and NPDES permit are adopted pursuant to this Order. The terms of the existing Order automatically continued in effect after the permit expiration date.

38. Sub-sections in Section II.C *Summary of Existing Requirements and Self-Monitoring Report (SMR) Data* on pages F-6 and F-7 of Attachment F have been renumbered to 1 through 7.
39. The following is inserted as Section III.C.5 *Alaska Rule* on page F-10 of Attachment F:

Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards (WQS) become effective for Clean Water Act (CWA) purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under USEPA's new regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

40. The following is inserted as Section III.C.6 *No More Stringent Than Federal Law* on page F-10 of Attachment F:

No More Stringent Than Federal Law. This Order contains restrictions on individual pollutants that are no more stringent than required by the federal Clean Water Act. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on carbonaceous biochemical oxygen demand (CBOD₅), total suspended solids (TSS), and hydrogen ion concentration (pH). Restrictions on CBOD₅, TSS, and pH are specified in federal regulations as discussed in Finding F, and the Order's technology-based pollutant restrictions are no more stringent than required by the

Clean Water Act. Water quality-based effluent limitations have been derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the Ocean Plan (2001), the Ocean Plan is the applicable standard pursuant to CWA Section 303(c)(1). The scientific procedures for calculating the individual water quality-based effluent limitations are based on the Program of Implementation contained in the California Ocean Plan, which was adopted by the State Water Resources Control Board on November 16, 2000 and approved by USEPA on December 3, 2001. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless “applicable water quality standards for purposes of the [Clean Water] Act” pursuant to 40 CFR 131.21(c)(1). The remaining water quality objectives and beneficial uses implemented by this Order (specifically temperature) were adopted in the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972 and amended on September 18, 1975 and are applicable water quality standards pursuant to 40 CFR 131.21(c)(1). Collectively, this Order’s restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the Clean Water Act and the applicable water quality standards for purposes of the Clean Water Act.

41. The following correction to Section III.C.1 *Water Quality Control Plans* on page F-9 of Attachment F has been made:

The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended it this plan on September 18, 1975. The Thermal plan contains temperature objectives for coastal waters.

42. The following changes to Section IV.A *Discharge Prohibitions* on page F-11 of Attachment F have been made:

Prohibition A.1 of Order No. 99-72 ~~99-71~~ has been modified to clearly define what types of discharges are prohibited by this Order. The modified prohibition is contained in Section III.A of this Order. In addition, language has been added in Section VII, Compliance Determination, which accurately describes how violations of Prohibition III.A and the other discharge prohibitions contained in Order No. R9-2005-010110 are determined. Discharges from the Facility to surface water in violation of prohibitions contained in Order No. R9-2005-010110 are violations of the Clean Water Act and therefore are subject to third party lawsuits. Discharges from the Facility to land in violation of prohibitions contained in Order

No. R9-2005-010~~10~~ are violations of the California Water Code and are not subject to third party lawsuits under the Clean Water Act (the California Water Code does not contain provisions allowing third party lawsuits). This clarification is intended to address concerns raised by Dischargers regarding third party lawsuits.

43. The following correction to the dilution factor in Section IV.C.3 *Determining the Need for WQBELs* on page F-15 of Attachment F has been made:

A minimum probable initial dilution of ~~237~~ ~~229~~:1 was considered in this evaluation.

44. The following correction to the dilution factor in Section IV.C.4 *WQBEL Calculations* on page F-15 of Attachment F has been made:

To develop effluent limitations for the updated facilities where applicable, the Regional Water Board has recalculated the minimum probable initial dilution factor to be ~~237~~ ~~229~~ to 1.

45. The following corrections to the WQBEL example calculations in Section IV.C.4 *WQBEL Calculations* on pages F-16 and F-17 of Attachment F has been made:

Copper

$$\begin{aligned}C_e &= 3 + \del{237} \del{229} (3 - 2) = \del{240} \del{232} \text{ }\mu\text{g/L (6-Month Median)} \\C_e &= 12 + \del{237} \del{229} (12 - 2) = \del{2,382} \del{2,302} \text{ }\mu\text{g/L (Daily Maximum)} \\C_e &= 30 + \del{237} \del{229} (30 - 2) = \del{6,666} \del{6,442} \text{ }\mu\text{g/L (Instantaneous Maximum)}\end{aligned}$$

Chronic Toxicity

$$C_e = 1 + \del{237} \del{229} (1 - 0) = \del{238} \del{230} \text{ TUc (Daily Maximum)}$$

Chloroform

$$C_e = 130 + \del{237} \del{229} (130 - 0) = \del{30,940} \del{29,900} \text{ }\mu\text{g/L (30-Day Average)}$$

Chlorine

$$\begin{aligned}C_e &= 2 + \del{237} \del{229} (2 - 0) = \del{476} \del{460} \text{ }\mu\text{g/L (6-Month Median)} \\C_e &= 8 + \del{237} \del{229} (8 - 0) = \del{1,904} \del{1,840} \text{ }\mu\text{g/L (Daily Maximum)} \\C_e &= 60 + \del{237} \del{229} (60 - 0) = \del{14,280} \del{13,800} \text{ }\mu\text{g/L (Instantaneous Maximum)}\end{aligned}$$

Acute Toxicity

For the Hale Avenue Resource Recovery Facility, where D_m equals ~~237~~ ~~229~~, the effluent limitation for acute toxicity, based on the Ocean Plan (2001), is ~~7.4~~ ~~6.9~~ TUa.

46. The following changes to Table 11 New Toxic Pollutants and Corresponding Limitations in Section IV.C.4.a *WQBEL Calculations* on page F-17 of Attachment F have been made:

Table 11. New Toxic Pollutants and Corresponding Performance Goals ~~Limitations~~

Pollutant	Units	Monthly Average
Chlorodibromomethane	µg/L	2,000
	lbs/day	310 300
Dichlorobromomethane	µg/L	1,500 1,400
	lbs/day	220 210
N-nitrosodi-N-propylamine	µg/L	90 87
	lbs/day	14 13
Heptachlor epoxide	µg/L	0.0048 0.0046
	lbs/day	0.00071 0.00069

47. The following changes to Table 12. Toxic Pollutant Limitations Based on the 2001 Ocean Plan in Section IV.C.4.b *WQBEL Calculations* on page F-18 of Attachment F have been made:

Table 12. Toxic Pollutant Performance Goals ~~Limitations~~ Based on the 2001 Ocean Plan

Pollutant	Units	Monthly Average
1,1-dichloroethylene	µg/L	200
	lbs/day	32 28
Isophorone	µg/L	170,000 160,000
	lbs/day	26,000 22,000
Tetrachloroethylene	µg/L	480 460
	lbs/day	71 69
Thallium	µg/L	480 460
	lbs/day	71 69
1,1,2,2-tetrachloroethane	µg/L	550 510
	lbs/day	82 70
1,1,2-trichloroethane	µg/L	2,200
	lbs/day	340 320
1,2-dichloroethane	µg/L	6,700 6,400
	lbs/day	1,000 970
Heptachlor	µg/L	0.012
	lbs/day	0.0018 0.0017

48. The following correction to the chronic toxicity limitation in Section IV.C.5 *Whole Effluent Toxicity (WET)* on page F-18 of Attachment F has been made:

Based on methods of the Ocean Plan (2001), a maximum daily effluent limitation of **238** ~~230~~ TUC for chronic toxicity is required.

49. The following correction to the acute toxicity limitation in Section IV.C.5 *Whole Effluent Toxicity (WET)* on page F-18 of Attachment F has been made:

Based on methods of the Ocean Plan (2001), for the Hale Avenue Resource Recovery Facility's discharge to the Pacific Ocean, a single effluent limitation for acute toxicity is required – a maximum daily effluent limitation of **7.4** ~~6.9~~ TUa.

50. The following correction to the dilution factor in Section IV.D *Final Effluent Limitations* on page F-19 of Attachment F has been made:

Effluent limitations were determined according to the standards and equations provided in the Ocean Plan (2001). Where Order No. R9-2005-0101 establishes mass emission limitations, these limitations have been derived based on a flow of 18.0 MGD, which is the design treatment capacity of the Facility, and a minimum probable initial dilution factor of **237** ~~229~~:1.

51. The following corrections to Table 13. Summary of Final Effluent Limitations in Section IV.D *Final Effluent Limitations* on page F-19 of Attachment F has been made:

Constituent	Units	Effluent Limitations					
		Max Daily	Avg Monthly	Avg Weekly	Instantaneous		6 Month Median
					Min	Max	
CBOD 5-day 20°C	mg/l		25	40			
	lbs/day		3,400 1,100	5,500 1,800			
	%	The average monthly percent removal shall not be less than 85 percent.					
Total Suspended Solids	mg/l		30	45			
	lbs/day		4,100 1,300	6,200 2,000			
	%	The average monthly percent removal shall not be less than 85 percent.					
pH	Standard units				6.0	9.0	
Oil and Grease	mg/l		25	40		75	
	lbs/day		3,400	5,500		10,000	
Settleable Solids	ml/l		1.0	1.5		3.0	
Turbidity	NTU		75	100		225	
Acute Toxicity	TUa	7.4 6.9					

52. The following correction to the dilution factor in Section IV.E *Performance Goals* on page F-19 of Attachment F has been made:

Performance goals were determined according to the standards and equations provided in the Ocean Plan (2001). Mass emissions have been derived based on a flow of

18.0 MGD, which is the design treatment capacity of the Facility, and a minimum probable initial dilution factor of ~~237~~ 229:1.

53. The following replaces Table 14. Summary of Performance Goals in Section IV.E *Performance Goals* on pages F-19 through F-22 of Attachment F:

Constituent	Units	Performance Goals					
		Max Daily	Avg Monthly	Avg Weekly	Instantaneous		6 Month Median
					Min	Max	
Arsenic	ug/l	6,900				18,000	1,200
	lbs/day	1,000				2,800	180
Cadmium	ug/l	950				2,400	240
	lbs/day	140				360	36
Chromium (Hexavalent)	ug/l	1,900				4,800	480
	lbs/day	290				710	71
Copper	ug/l	2,300				6,700	240
	lbs/day	360				1,000	36
Lead	ug/l	1,900				4,800	480
	lbs/day	290				710	71
Mercury	ug/l	38				95	9.4
	lbs/day	5.7				14	1.4
Nickel	ug/l	4,800				12,000	1,200
	lbs/day	710				1,800	180
Selenium	ug/l	14,000				36,000	3,600
	lbs/day	2,100				5,400	540
Silver	ug/l	630				1,600	130
	lbs/day	94				240	19
Zinc	ug/l	17,000				46,000	2,900
	lbs/day	2,600				6,900	430
Cyanide	ug/l	950				2,400	240
	lbs/day	140				360	36
Total Residual Chlorine	ug/l	1,900				14,000	480
	lbs/day	290				2,100	72
Chronic Toxicity	TUc	238					
Ammonia (as N)	mg/l	570				1,400	140
	lbs/day	24,000				60,000	6,000
Phenolic Compounds (non-chlorinated)	ug/l	29,000				71,000	7,100
	lbs/day	4,300				10,700	1,100
Chlorinated Phenolics	ug/l	950				2,400	240
	lbs/day	140				360	36
Endosulfan	ug/l	4.3				6.4	2.1
	lbs/day	0.64				0.96	0.32
Endrin	ug/l	0.95				1.4	0.48
	lbs/day	0.14				0.21	0.071
HCH	ug/l	1.9				2.9	0.95
	lbs/day	0.29				0.43	0.14
Radioactivity	-	Not to exceed limits specified in Title 17 California Code of Regulations					

Constituent	Units	Performance Goals					
		Max Daily	Avg Monthly	Avg Weekly	Instantaneous		6 Month Median
					Min	Max	
	-	Section 30253, Standards for Protection Against Radiation					
Acrolein	ug/l		52,000				
	lbs/day		7,900				
Antimony	ug/l		290,000				
	lbs/day		43,000				
Bis (2-chloroethoxy) methane	ug/l		1,000				
	lbs/day		160				
Bis (2-chloroisopropyl) ether	ug/l		290,000				
	lbs/day		43,000				
Chlorobenzene	ug/l		140,000				
	lbs/day		20,000				
Chromium (III)	ug/l		45,000,000				
	lbs/day		6,800,000				
Di-n-butyl Phthalate	ug/l		830,000				
	lbs/day		130,000				
Dichlorobenzenes	ug/l		1,200,000				
	lbs/day		180,000				
1,1-Dichloroethylene	ug/l		210				
	lbs/day		32				
Diethyl Phthalate	ug/l		7,900,000				
	lbs/day		1,200,000				
Dimethyl Phthalate	ug/l		200,000,000				
	lbs/day		29,000,000				
4,6-Dinitro-2-methylphenol	ug/l		52,000				
	lbs/day		7,900				
2,4-Dinitrophenol	ug/l		9,500				
	lbs/day		1,400				
Ethylbenzene	ug/l		980,000				
	lbs/day		150,000				
Fluoranthene	ug/l		3,600				
	lbs/day		540				
Hexachlorocyclopentadiene	ug/l		14,000				
	lbs/day		2,100				
Isophorone	ug/l		170,000				
	lbs/day		26,000				
Nitrobenzene	ug/l		1,200				
	lbs/day		180				
Thallium	ug/l		480				
	lbs/day		71				
Toluene	ug/l		20,000,000				
	lbs/day		3,000,000				
1,1,2,2-Tetrachloroethane	ug/l		550				
	lbs/day		82				
Tributyltin	ug/l		0.33				
	lbs/day		0.050				

Constituent	Units	Performance Goals					
		Max Daily	Avg Monthly	Avg Weekly	Instantaneous		6 Month Median
					Min	Max	
1,1,1-Trichloroethane	ug/l		130,000,000				
	lbs/day		19,000,000				
Acrylonitrile	ug/l		24				
	lbs/day		3.6				
Aldrin	ug/l		0.0052				
	lbs/day		0.00079				
Benzene	ug/l		1,400				
	lbs/day		210				
Benzidine	ug/l		0.016				
	lbs/day		0.0025				
Beryllium	ug/l		7.9				
	lbs/day		1.2				
Bis (2-chloroethyl) ether	ug/l		11				
	lbs/day		1.6				
Bis (2-ethylhexyl) phthalate	ug/l		830				
	lbs/day		125				
Carbon Tetrachloride	ug/l		210				
	lbs/day		32				
Chlordane	ug/l		0.0056				
	lbs/day		0.00082				
Chlorodibromomethane	ug/l		2,000				
	lbs/day		310				
Chloroform	ug/l		31,000				
	lbs/day		4,600				
DDT	ug/l		0.040				
	lbs/day		0.0061				
1,4-Dichlorobenzene	ug/l		4,300				
	lbs/day		640				
3,3'-Dichlorobenzidine	ug/l		1.9				
	lbs/day		0.29				
1,2-Dichloroethane	ug/l		6,700				
	lbs/day		1,000				
Dichlorobromomethane	ug/l		1,500				
	lbs/day		220				
Dichloromethane	ug/l		110,000				
	lbs/day		16,000				
1,3-Dichloropropene	ug/l		2,100				
	lbs/day		320				
Dieldrin	ug/l		0.0095				
	lbs/day		0.0014				
2,4-Dinitrotoluene	ug/l		620				
	lbs/day		93				
1,2-Diphenylhydrazine	ug/l		38				
	lbs/day		5.7				
Halomethanes	ug/l		31,000				
	lbs/day		4,600				

Constituent	Units	Performance Goals					
		Max Daily	Avg Monthly	Avg Weekly	Instantaneous		6 Month Median
					Min	Max	
Heptachlor	ug/l		0.012				
	lbs/day		0.0018				
Heptachlor Epoxide	ug/l		0.0048				
	lbs/day		0.00071				
Hexachlorobenzene	ug/l		0.050				
	lbs/day		0.0075				
Hexachlorobutadiene	ug/l		3,300				
	lbs/day		500				
Hexachloroethane	ug/l		600				
	lbs/day		89				
N-Nitrosodimethylamine	ug/l		1,700				
	lbs/day		260				
N-Nitrosodi-N-Propylamine	ug/l		90				
	lbs/day		14				
N-Nirtosodiphenylamine	ug/l		600				
	lbs/day		89				
PAHs	ug/l		2.1				
	lbs/day		0.31				
PCBs	ug/l		0.0045				
	lbs/day		0.00069				
TCDD Equivalents	ug/l		0.00000093				
	lbs/day		0.00000014				
Tetrachloroethylene	ug/l		480				
	lbs/day		71				
Toxaphene	ug/l		0.050				
	lbs/day		0.0075				
Trichloroethylene	ug/l		6,400				
	lbs/day		960				
1,1,2-Trichloroethane	ug/l		2,200				
	lbs/day		340				
2,4,6-Trichlorophenol	ug/l		69				
	lbs/day		10				
Vinyl Chloride	ug/l		8,600				
	lbs/day		1,300				

54. The following replaces Section VI.F.2.a *Recalculation of Ocean Outfall Initial Dilution Factor* on pages F-24 and F-25 of Attachment F:

As discussed elsewhere in this Fact Sheet, it was necessary to recalculate the initial dilution factor, Dm, for this current permit renewal due to an expansion of the City of Escondido's treatment facilities which also discharge through the San Elijo Ocean Outfall (SEOO). The new recalculated Dm of 237, which is based on an SEOO total permitted flow rate of 23.25 MGD, is an increase over the previous permit's Dm of 220 which was based on an SEOO operational total flowrate of 24 MGD. (While the previous Dm was determined using 24 MGD, the total permitted flowrate was

previously only 21.75 MGD). The new Dm results in a slight relaxation of effluent limitations in this Order compared to the those in Order No. 99-71 and also reflects an expansion of the zone of initial dilution (ZID), both of which may indicate a lowering of water quality.

The concentration effluent limitations in this Order, recalculated using the new Dm, are approximately 8% higher than the concentration effluent limitations in the previous permit. Because the total permitted flowrate through the SEOO was previously only 21.75 MGD, as provided in the previous NPDES permits for SEJPA and the City of Escondido, the relaxed effluent limitations in this permit combined with the new total permitted flowrate through the SEOO of 23.25 MGD, as provided in the new NPDES permits for SEJPA and the City of Escondido, results in a greater permitted mass emission rate (MER) for a given constituent. The greater MER for a given constituent is expected to result in a lowering of existing water quality for that constituent by an increment approximately equal to 8% of the six-month median water quality objective (WQO) and 12% of the daily maximum and instantaneous WQO. See example calculations considering Arsenic below:

- Arsenic Daily Maximum WQO (Ocean Plan 2001, Table B) = 32 ug/L
- Previous mass emission rate (MER) =
(previous effluent limitation) x (previous permitted total flow rate) =
(6400 ug/L) x (21.75 MGD) x 0.00834 = 1160 lbs/day
- Current MER =
(current effluent limitation) x (current permitted total flow rate) =
(6900 ug/L) x (23.25 MGD) x 0.00834 = 1338 lbs/day
- MER difference =
(Current MER) - (Previous MER) =
1338 lbs/day - 1160 lbs/day = 178 lbs/day
- Increment Change in Arsenic water quality =
(MER difference) / [(effluent flowrate) +(diluting ocean water “flowrate”)] =
(178 lbs/day) / [(23.25 MGD + 5510.25 MGD)(0.00834)] = 3.9 ug/L

where Ocean water “flowrate” =
(Effluent flowrate) x (initial dilution factor) =
23.25 MGD x 237 = 5510.25 MGD
- Increment water quality change as a percentage of the water quality objective =
3.9 ug/L / 32 ug/L x 100% = 12.2 %

The example calculations illustrate that if the actual existing water quality for arsenic in the receiving water is better than the daily maximum WQO of 32 ug/L, then the water quality will be lowered by 3.9 ug/L for arsenic, or 12.2 % of the WQO. This lowering of water quality is not expected to be significant and is not expected to cause adverse effects to the overall receiving water. Furthermore, the example calculations assume that the effluent will contain arsenic at the concentration of the effluent limitation, whereas historical effluent data for the discharge through the SEOO indicate that concentration of constituents listed under Table B of the Ocean Plan in the effluent discharged are considerably lower. For these reasons, the Regional Board has determined that an antidegradation analysis is not required to consider the possible impacts resulting from the recalculation of initial dilution factor and consequent relaxation of effluent limitations.

The recalculation of Dm also indicated that the zone of initial dilution (ZID) expands to 41 feet from the outfall diffuser. The ZID is recognized as the mixing zone in the receiving water where water quality objectives may be exceeded however adverse effects to the overall receiving water body must be prevented. The computer model results indicate that a lowering of water quality may occur in the area 5 feet to 25 feet from the outfall diffuser by an increment not greater than 100% of the WQO for a given constituent and by an increment not greater than 30% of the WQO in the area 25 feet to 41 feet from the outfall diffuser. As examples, where arsenic concentrations 20 feet from the diffuser were previously predicted to be 170 ug/L, concentrations are now expected to be 200 ug/L, and where arsenic concentrations 35 feet from the diffuser were predicted to be 30 ug/L, concentrations are now predicted to be 40 ug/L. In addition to being spatially limited, the incremental lowering of water quality in the ZID is expected to be temporally limited because, as explained previously, the concentrations of a given constituent in the effluent discharged through the SEOO have historically been considerably lower than the effluent limitations except for exceptional circumstances of short-term duration. For these reasons, the lowering of water quality within the ZID is not expected to be significant and is not expected to cause adverse effects to the overall receiving water; therefore, the Regional Water Board has determined that an antidegradation analysis is not required to consider the possible impacts resulting from the recalculation of the initial dilution factor and expansion of the ZID.

55. The following change to Section VI.B *Effluent Monitoring* on page F-27 of Attachment F has been made:

~~Order No. R9-2005-0101 does not require monitoring for acute toxicity and requires chronic toxicity to be monitored monthly, otherwise~~ all effluent monitoring requirements from Order No. 99-72 are retained by the MRP (Attachment E) No. R9-2005-0101.

56. The following changes to Section VI.D.1 *Surf Zone Water Quality Monitoring* on page F-27 of Attachment F have been made:

To assess bacteriological conditions in areas used for body contact activities and to assess aesthetic conditions for general recreational uses, Monitoring and Reporting Program (MRP) No. R9-2005-0101 requires that total and fecal coliform and enterococcus bacteria be monitored at a minimum frequency of once per week from May 1 through October 31, and at a minimum frequency of once every other week from November 1 through April 30 of each year at the 7 surf zone locations.

For the sample period of 2003 through August of 2004, no samples collected at any of the seven surf zone water quality monitoring stations showed bacteria levels that exceeded water quality criteria of the Ocean Plan. Surf zone monitoring station S-6, located at the mouth of the San Elijo Lagoon, consistently showed measurable levels of total and fecal coliform and enterococcus, whereas bacteria levels at other surf zone stations were typically non-detect or very low.

For this reason, surf zone monitoring station S-6 has been made historical. Surf zone monitoring station S-8, 8,000 feet north of the outfall, has been created for this Order.

~~MRP No. R9-2005-0101 only alters the sampling frequency from Order No. 99-72, otherwise, Order~~ No. R9-2005-0101 and its MRP (Attachment E) ~~No. R9-2005-0101~~ retain the requirements of Order No. 99-72 for surf zone water quality monitoring.

57. The following changes to Section VI.D.2 *Near Shore Water Quality Monitoring* on page F-28 of Attachment F have been made:

~~MRP No. R9-2005-0101 only alters the sampling frequency from Order No. 99-72, otherwise, Order~~ No. R9-2005-0101 and its MRP (Attachment E) ~~No. R9-2005-0101~~ retain the requirements of Order No. 99-72 for near shore water quality monitoring.

58. The following changes to Section VI.D.3 *Off Shore Water Quality Monitoring* on page F-28 of Attachment F have been made:

~~MRP No. R9-2005-0101 only alters the sampling frequency from Order No. 99-72, otherwise, Order~~ No. R9-2005-0101 and its MRP (Attachment E) ~~No. R9-2005-0101~~ retain the requirements of Order No. 99-72 for off shore water quality monitoring.

59. The following changes to Section VI.E.1 *Benthic Monitoring* on pages F-28 and F-29 of Attachment F have been made:

To assess the status of the benthic community and to evaluate the physical and chemical quality of sediments in the receiving water, Order No. R9-2005-0101 requires the following

intensive monitoring during the 12-month period beginning November 1, 2008 through October 31, 2009. Results must be submitted by December 10, 2009. ~~first and third years of the Order.~~

- a. Sediment Characteristics. Analyses shall be performed on the upper two inches of sediment core samples in accordance with the following schedule:

Table 16. Sediment Monitoring Requirements

Determination	Units	Type of Sample	Minimum Frequency
Sulfides	mg/kg	core	<u>Semi-annually</u> Years 1 & 3
Total Chlorinated Hydrocarbons	mg/kg	core	<u>Semi-annually</u> Years 1 & 3
BOD ₅	mg/kg	core	<u>Semi-annually</u> Years 1 & 3
COD	mg/kg	core	<u>Semi-annually</u> Years 1 & 3
Particle Size Distribution	mg/kg	core	<u>Semi-annually</u> Years 1 & 3
Arsenic	mg/kg	core	<u>Annually</u> Years 1 & 3
Cadmium	mg/kg	core	<u>Annually</u> Years 1 & 3
Total Chromium	mg/kg	core	<u>Annually</u> Years 1 & 3
Copper	mg/kg	core	<u>Annually</u> Years 1 & 3
Lead	mg/kg	core	<u>Annually</u> Years 1 & 3
Mercury	mg/kg	core	<u>Annually</u> Years 1 & 3
Nickel	mg/kg	core	<u>Annually</u> Years 1 & 3
Silver	mg/kg	core	<u>Annually</u> Years 1 & 3
Zinc	mg/kg	core	<u>Annually</u> Years 1 & 3
Cyanide	mg/kg	core	<u>Annually</u> Years 1 & 3
Phenolic Compounds	mg/kg	core	<u>Annually</u> Years 1 & 3
Radioactivity	pCi/kg	core	<u>Annually</u> Years 1 & 3

- b. Infauna. Samples shall be collected with a Paterson, Smith-McIntyre, or orange-peel type dredge, having an open sampling area of not less than 124 square inches and a sediment capacity of not less than 210 cubic inches. The sediment shall be sifted

through a one-millimeter mesh screen and all organisms shall be identified to as low a taxon as possible. Monitoring shall occur during the 12-month period beginning November 1, 2008 through October 31, 2009. Results must be submitted by December 10, 2009. ~~Sampling shall consist of 3 grab samples per year taken during years 1 and 3 of the Order.~~

Table 17. Infauna Monitoring Requirements

Determination	Units	Minimum Frequency
Benthic Biota	Identification and enumeration	3 grabs <u>semi-annually</u> years 1 & 3

~~If the discharger does not comply with effluent limitations of the Order, the Regional Water Board may require the discharger to perform the sediment monitoring, described above, on a year round basis during the term of Order No. R9-2005-0101.~~

~~MRP No. R9-2005-0101 only alters the sampling frequency from Order No. 99-72, otherwise, Order~~ **No. R9-2005-0101** ~~and its MRP (Attachment E) No. R9-2005-0101~~ retain the requirements of Order No. 99-72 for benthic monitoring.

60. The following changes to Section VI.E.2 *Demersal Fish and Macroinvertebrate Monitoring* on pages F-29 and F-30 of Attachment F have been made:

~~Order No. R9-2005-0101 requires the Discharger to establish a 30-meter band transect on the ocean bottom, within the receiving waters. During 12-month period for first and third year of Order No. R9-2005-0101, the Discharger must perform a survey of demersal fish and macroinvertebrates within the transect. If the Discharger does not comply with effluent limitations of the Order, the Regional Water Board may also require the Discharger to perform this monitoring, one time each year during the term of Order No. R9-2005-0101.~~

~~MRP No. R9-2005-0101 only alters the sampling frequency from Order No. 99-72, otherwise, Order~~ **No. R9-2005-0101** ~~and its MRP (Attachment E) No. R9-2005-0101~~ retain the requirements of Order No. 99-72 for demersal fish and macroinvertebrate monitoring. Monitoring shall occur during the 12-month period beginning November 1, 2008 through October 31, 2009. Results must be submitted by December 10, 2009.

61. The following changes to Section VI.E.5 *Intensive Monitoring* on page F-30 of Attachment F have been made:

The Discharger shall perform the intensive monitoring as described by ~~the MRP No. R9-2005-0101 for years 1 and 3 of the Order during the 12-month period beginning November 1, 2008 through October 31, 2009 and participate in the Southern California Coastal Water Research Project (SCCWRP) Bight Study in year 5 of this Order.~~ Results of the intensive monitoring must be submitted by December 10, 2009.

62. Section VI.E.6 *Plume Tracking Study* on page F-30 of Attachment F has been deleted.
63. Section VI.E.7 *Urban Runoff Diversions* on pages F-30 and F-31 of Attachment F has been deleted.
64. The following addition to Section VII.B.2.a *Treatment Plant Capacity* on page F-31 of Attachment F has been made:

The treatment plant capacity study required by Order No. R9-2005-0101 shall serve as an indicator for the Regional Water Board the regarding Facility's increasing hydraulic capacity and growth in the service area.

65. Section VII.B.2.f *Urban Runoff Diversions* on page F-32 of Attachment F has been deleted.
66. Section VII.B.2.g *Plume Tracking Study* on page F-32 of Attachment F has been deleted.
67. The following changes to Section VIII.A *Notification of Interested Parties* on pages F-34 of Attachment F have been made:

Notification was provided through publication in the North County Times on May 6 ~~April 8~~, 2005 and by letter mailed to interested parties on May 6 ~~April 8~~, 2005.

68. The following changes to Section VIII.B *Written Comments* on pages F-35 of Attachment F have been made:

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on June 1 ~~May 4~~, 2005.

69. The following changes to Section VIII.C *Public Hearing* on pages F-35 of Attachment F have been made:

Date: June 8 ~~May 11~~, 2005
Time: 9:00 am
Location: Regional Water Quality Control Board ~~City of Laguna Beach~~
Regional Board Meeting Room ~~City Council Chambers~~
9174 Sky Park Court ~~505 Forest Avenue~~
San Diego ~~Laguna Beach~~, CA

70. The following change to Section VIII.D *Waste Discharge Requirements Petitions* on page F-35 of Attachment F has been made:

Any aggrieved person may petition the State Water ~~Resources Control~~ Board to review the decision of the Regional Water Board regarding the final WDRs.